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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,969	08/07/2002	Martin Brundert	4925-216PUS	4759

27799 7590 01/29/2007
COHEN, PONTANI, LIEBERMAN & PAVANE
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NEW YORK, NY 10176

EXAMINER

WANG, U LUN

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PD

Office Action Summary	Application No.		Applicant(s)	
	10/070,969		BRUNDERT ET AL.	
	Examiner		Art Unit	
	U-Lun Wang		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is in response to the amendment filed on November 13, 2006.
2. The amended Abstract, Drawings and Specification filed on November 13, 2006 are accepted.
3. Claims 1 – 18 are currently pending in this application

Specification

4. The disclosure is objected to because of the following informalities:

Throughout the specification, the phrases "virtual connection" (see page 2, 3, etc.) and "virtual channel" (see page 7) are used without explanation. Sometimes they refer to the same thing. For example, "virtual connection" in paragraph 4 on page 3 and "virtual channel" in paragraph on page 7. In standard ATM terminology, virtual connection and virtual channel have different meanings. A virtual connection may contain many virtual channels. And virtual connections are either permanent or switched. The specification should be modified to clearly define the virtual connection and virtual channel. For prosecution purpose, both virtual connection and virtual channel are interpreted as any connection.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 4, 5, 9, 12, 13 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For claims 4, 9, 10, 12 and 17, the phrase "wherein the multiplexing unit has a switchable bypass line" has not been described in the specification or the drawings. Explanation is required.

Claim 5 which is dependent on claim 4 and claim 13 which is dependent on claim 12 are rejected.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 - 18 are rejected for lack of antecedent basis in the claims.

For claims 1, 6 and 7, the phrase “a single asynchronous transfer mode **virtual connection**” is recited in lines 17 – 18 of claim 1, lines 18 – 19 of claim 6, and lines 18 – 19 of claim 7. However, in paragraph 2 on page 7 of the instant application, the phrase “combined into the same **virtual channel** of an ATM cell arriving at the ATM switch” is used. Explanation of the difference of virtual connection and virtual channel is required.

Claims 2 – 5 and 8 – 10 which are dependent on claim 1, claims 11 – 13 which are dependent on claim 6, and claims 14 – 18 which are dependent on claim 7, are also rejected.

Claim 3 recites the limitation “claim 1, wherein each channel” in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 1 does not mention channel.

Claim 8 recites the limitation “claim 2, wherein each channel” in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 2 does not mention channel.

For claims 5, 13 and 18, the phrase “wherein the multiplexing unit is a plug-in type unit” has not been described in the specification or the drawings. Explanation is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 6, 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Wakizaka (U.S. Patent 6,639,916 B1).

For claims 1, 6 and 7, Fig. 2 of this instant application shows that prior art already discloses a telecommunication network, an ATM switch and a method with all the limitation except a multiplexing unit for multiplexing AAL-2 connections of the different termination points into a single asynchronous transfer mode virtual connection.

Wakizaka discloses a multiplexing unit (Fig.8, item 6 is the multiplexer) for multiplexing AAL-2 cells, which is sent from AAL-2 assembling unit into a single ATM virtual connection (Fig. 8, ATM Bus 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Wakizaka's multiplexer as the multiplexing unit in the admitted prior art of this instant application for multiplexing AAL-2 connections of the different termination points into a single asynchronous transfer mode virtual connection.

The motivation is to eliminate the waste of large ATM cell payload when sending small size data for a single user.

For claim 15, a cell inherently has one to several base stations. The admitted prior art network (Fig. 2) shows the termination points of different radio sectors are within one base station.

For claim 16, the multiplexing is performed in a multiplexing unit (Wakizaka, Fig. 8, MUX 6).

11. Claims 2, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Wakizaka, and further in view of Negishi et al. (U.S. Patent 6,414,970 B1) hereafter referred as Negishi.

For claims 2, 11 and 14, Wakizaka discloses all the subject matter except a telecommunication network wherein both AAL-2 streams coming from individual radio sectors and a multiplexed stream have independent control unit timers.

Negishi does teach independent system clocks/timers for each of the input degree one stream (i.e. System Clock C_{p1} in Fig. 9) and for the degree two multiplexer (System Clock C_r in Fig. 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Negishi's teaching in the admitted prior art as modified by Wakizaka.

The motivation is to control the input/output rate of the data stream involved to achieve the most efficient use of the bandwidth and synchronization of the data streams.

12. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Wakizaka, and further in view of Kuo (U.S. Patent 6,810,030 B1).

For claims 3 and 8, the admitted prior art network as modified by Wakizaka discloses all the subject matter except that each channel of the plurality of radio sectors has a different bandwidth.

Kuo discloses that 13k and 8k bandwidths are used in W-CDMA networks (Col. 5, lines 48 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Kuo's disclosure to have different bandwidths.

The motivation is simply to support all possible bandwidths for the mobile users.

Response to Arguments

Applicant's arguments with respect to claims 1 - 10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

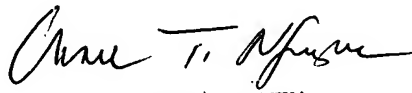
Any inquiry concerning this communication or earlier communications from the examiner should be directed to U-Lun Wang whose telephone number is (571) 270-1140. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UW/
1/24/2007


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